Article

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Relations industrielles / Industrial Relations, vol. 39, n° 3, 1984, p. 553-569.

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This paper presents an empirical test of a model of labor turnover with a particular application to remote communities in Canada.

The purpose of this paper is to present an empirical test of a model of labour turnover that has particular application to remote communities in Canada. The model presented asserts that in settings such as a remote resource town, worker characteristics will influence worker perceptions of both their jobs and the community, and that job and community satisfaction, together with worker perception of the outside labour market, will influence intentions to search for alternative employment and intentions to quit. The use of logit analysis distinguishes this study from previous studies of turnover and our purpose is to demonstrate the potential of this approach through the analysis of labour turnover in a large manufacturing firm located in northern British Columbia.

PREVIOUS STUDIES OF TURNOVER

Mobley *et al.*, [18], have identified a variety of underlying causal factors related to turnover in their survey of the literature. They state that «age, tenure, overall satisfaction, job content, intentions to remain on the job and commitment are consistently and negatively related to turnover.» They also note that «lack of a clear conceptual model, failure to consider

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** The authors wish to thank Chris Hall of the Department of Economics at Simon Fraser University for his assistance with some computer programs, and the Reading Committee of *Relations industrielles* for valuable comments and suggestions.

available job alternatives, insufficient multivariate research, and infrequent longitudinal studies are ... factors precluding a better understanding of the psychology of the turnover process.»

Consistent positive relationships have been found between turnover and the following factors:

1. *aggregate economic activity* (Armknecht and Early, [1]; Forest, Cummings and Johnston, [7]; Price, [25]; Woodward, [30])
2. *intentions to quit* (Kraut, [14]; Mangione, [15]; Marsh and Mannari, [16]; Mobley, Horner and Hollingsworth, [19]; Newman, [20]; Waters, Roach and Waters, [29])

The variation of turnover rates over the business cycle reflects the availability of alternative jobs and the fact that dissatisfied workers are less likely to quit when few alternative jobs are available. In addition, workers who take jobs with the intention of remaining in the work force or the particular job for a limited time, or who develop these intentions while on the job, have higher turnover rates than other workers.

Consistent negative relationships have been reported between turnover and the following factors:

1. *age* (Federico, Federico and Lundquist, [6]; Hellriegel and White, [10]; Mobley, Horner and Hollingsworth, [19]; Porter *et al.*, [23]; Waters, Roach and Waters, [29])
2. *tenure* (Mangione, [15]; Mobley *et al.*, [19]; Waters *et al.*, [29])
3. *job satisfaction* (Ilgen and Dugoni, [11]; Koch and Steers, [13]; Mangione, [15]; Marsh and Mannari, [16]; Mobley *et al.*, [19]; Newman, [20]; Waters and Roach, [28]; Kraut, [14]; Porter *et al.*, [23])
4. *organizational commitment and job attachment* (Marsh and Mannari, [16]; Porter *et al.*, [23]; Porter *et al.*, [22]; Steers, [26]; Mirvis and Lawler, [17]; Koch and Steers, [13])

Older persons with longer service are less likely to quit, as are persons who are satisfied with and attached to their jobs, and both committed to and involved with their organizations.

Mobley *et al.*, [18] also report a moderate negative relationship between turnover and *style of supervision* (Hellriegel and White, [10]; Ilgen and Dugoni, [11]; Koch and Steers, [13]; Mobley *et al.*, [19]; Newman, [20]; Waters *et al.*, [29]; Dansereau *et al.*, [3]; Graen and Ginsburgh, [8]), a weak negative relationship with «*met expectations*» (Dunnette *et al.*, [4]; Farr *et al.*, [5]; Ilgen and Seely, [12]; Ilgen and Dugoni, [11]; Wanous, [27]), and a weak positive relationship with their perceptions of the availability of *alternative jobs* (Dansereau *et al.*, [3]; Mobley *et al.*, [19]). Their survey reports inconclusive relationships with the following factors:

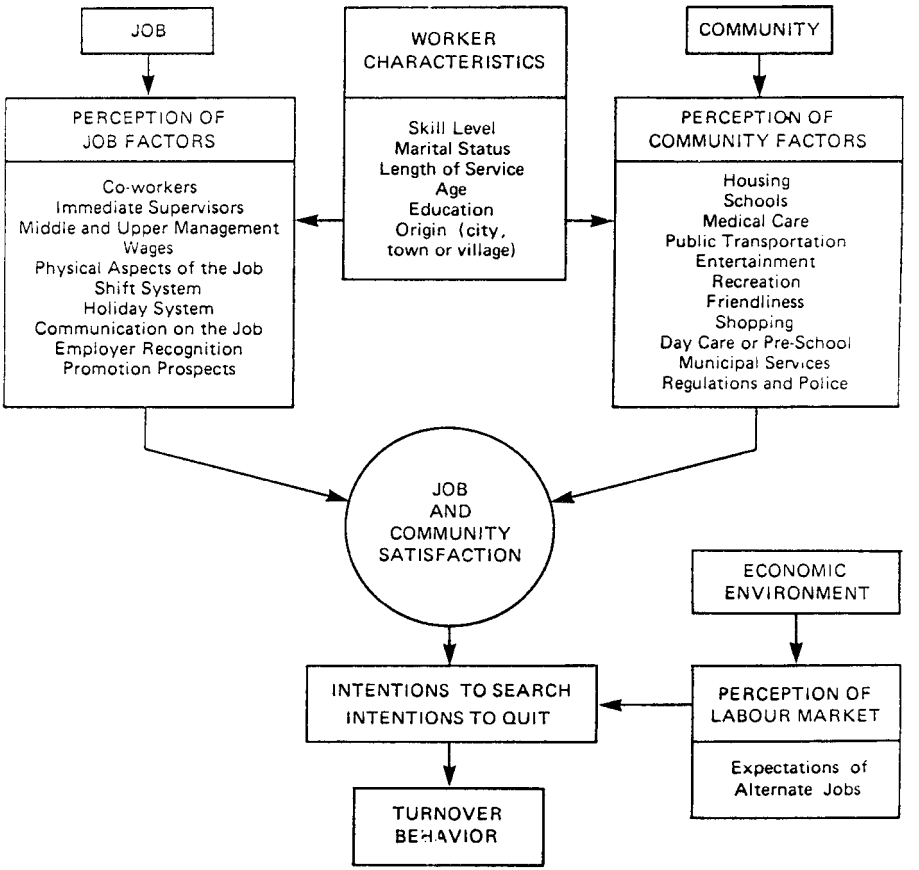
1. *sex* (Mangione, [15]; Marsh and Mannari, [16])
2. *education* (Federico *et al.*, [6]; Hellriegel and White, [10]; Mangione, [15])
3. *pay* (Federico *et al.*, [6]; Hellriegel and White, [10]; Koch and Steers, [13]; Kraut, [14]; Mangione, [15]; Mobley *et al.*, [19]; Newman, [20]; Waters *et al.*, [29]); Marsh and Mannari, [16])
4. *promotion* (Hellriegel and White, [10]; Koch and Steers, [13]; Kraut, [14]; Mobley *et al.*, [19]; Newman, [20]; Waters *et al.*, [29]; Marsh and Mannari, [16])
5. *peer group interaction* (Hellriegel and White, [10]; Ilgen and Dugoni, [11]; Koch and Steers, [13]; Kraut [14]; Mangione, [15]; Marsh and Mannari, [16]; Mobley *et al.*, [19]; Newman, [20]; Waters *et al.*, [29])

THE TURNOVER MODEL

Mobley *et al.*, [18] have identified the lack of a clear conceptual model as one of the limitations of many previous studies. Our turnover model is depicted graphically in Figure 1. We indentify in Figure 1, ten job factors and eleven community factors as well as six worker characteristics which we hypothesize could be involved in distinguishing stayers from leavers in this remote northern community. This model includes variables such as age, length of service, marital status, skill level, education, and various aspects of job satisfaction, all of which have previously been identified as being related to turnover. In addition, a number of community-related variables have also been included. In this remote northern community, which closely resembles a one-industry town, a decision to quit employment with the major employer, almost always implies a concomitant decision to seek employment in another community. Moreover, as recreation and entertainment opportunities (especially opportunities for young single males to meet young single females) were limited, employees attracted to the community by a job prospect, may subsequently have become dissatisfied with the community, though not necessarily with the job. Since a decision to leave the community requires a concomitant decision to leave the job, dissatisfaction with the community may be an important factor related to turnover in this remote northern resource town. For these reasons, the model used in this study includes employee perception of eleven community variables, as well as the origin of the employee in the set of worker characteristics, as hypothetically important independent variables. Finally, we note that in our model, the individual's decision whether or not to search for an alternate job, and whether or not to quit his present job, is tempered by his expectations of alternative jobs available in the labor market.

Figure 1

A MODEL OF TURNOVER BEHAVIOUR
FOR A REMOTE RESOURCE TOWN



Our empirical work does not examine all of the linkages in our model. We take the economic environment as given. We examine the effect of job and community perceptions on turnover behavior directly, and then examine the effect of worker characteristics on turnover and on those job and community perceptions found to be significantly related to the quit decision. Our reason for this sequential analysis is the belief that worker characteristics affect labour turnover through their influence on the perception of job and community factors. For example, the perception of the same entertainment in the same community may be very different for a married 50 year old with a grade 8 education and a village background than for a single 20 year old with a university education and a city background. Therefore our approach is to determine separately the job and community perceptions and the worker characteristics which underlie the quit decision, and then to examine the relationship between these two sets of underlying factors.

Algebraically, we may represent our model as follows:

(1) $P = f_1(C,J)$ where
P = probability of a quit
C = community factors
$= C_1, C_2, \ldots C_{11}$
J = job factors
$= J_1, J_2, \ldots J_{10}$

From this regression we determine the community and job related factors significantly related to the quit decision, and then go on to determine the underlying worker characteristics from the relationship

(2) $P = f_2(W)$ where
$W = W_1, W_2, \ldots W_6$

If we represent the significant variables in C and J in equation
(1) by C^* and J^*, and the significant variables in W in equation
(2) by W^*, our final step is to determine for each $C_j \varepsilon C^*$ and for each $J_k \varepsilon J^*$

(3) $C_j = f_j(W^*)$
(4) $J_k = f_k(W^*)$

Our four functional relations are obtained from logit analysis. Mobley *et al.*, [18] have indicated that there has been insufficient multivariate research in the turnover literature and we have chosen the logit model as the most appropriate to the problem at hand. Our dependent variable Y is a 1-0 dummy variable (1 for «quits», 0 for «non-quits»), and our purpose is to determine the effect of various factors X, (job perception, community perceptions and worker characteristics) on the probability of a quit.

The usual approach would be simply to use a linear regression of Y on X, and to interpret the regression coefficients $\hat{\beta}_j$ in the regression equation $Y = X\hat{\beta} + e$, as the contribution of X, to the probability of a quit. There are several problems with this approach, however. In the first place the ordinary least squares estimators $\hat{\beta}_j$ will be biased and inefficient because of an error term which has a non-zero expected value and is heteroscedastic (Cox, [2], Ch. 2; Hanushek and Jackson, [9]). An approximate generalized least squares (GLS) estimator could be used to reduce the seriousness of these problems, but other more serious problems would remain.

These other problems of a linear regression analysis with a dummy dependent variable are the assumption of a discontinuous cumulative probability distribution at the 0 and 1 boundaries, and the absence of interaction effects, at least in the linear additive model. The logit model overcomes these problems, implying a continuous cumulative probability distribution and allowing for interaction effects (Cox, [2]; Hanushek and Jackson, [9]).

The logistic function which is employed is

$$(5)\quad P = \frac{1}{1 + e^{-X\beta}}$$

where

P = the probability that Y = 1 (i.e., the probability of a «quit»)

X = the matrix of observations on the variables affecting P (i.e., X = (C, J, W))

β = vector of regression coefficients

Note that this cumulative probability distribution ranges from 0 to 1 as X ranges form $-\infty$ to $+\infty$, which is the desired specification. Note also that

$$(6)\quad \frac{\partial P}{\partial X_j} = \beta_j P(1-P)$$

The value of this derivative depends on where it is evaluated (in terms of P), and the level of P depends on the values of X_j and other regressor variables. This provides for interaction effects among the regressor.

The β's can be estimated from the logits, L, which are the log of the odds ratios

$$(7)\quad L = \log\left(\frac{P}{1-P}\right) = X\beta$$

The β's can therefore be estimated from a regression of L on X, in which the $\hat{\beta}$'s are chosen to maximize a likelihood function. The logits, or log odds ratios vary directly with P, so that a positive regression coefficient $\hat{\beta}_j$ for a factor X_j means that factor increases the probability of a quit. Conversely, a

negative regression coefficient means that the corresponding factor decreases the probability of a quit.

THE DATA

Our data were obtained from a study of the causes of labour turnover in a large manufacturing firm located in a remote area of British Columbia. Although levels of turnover for «staff» had increased slightly over historical levels, quit rates for blue collar workers had increased significantly before and during the period of our investigation. Data on quits were obtained from an intensive interview program of all employees who quit during a three month period. These employees were personally interviewed for approximately 45 minutes by members of an independent study group to obtain each employee's evaluation of various job and community factors, as well as their own worker characteristics. A total of 145 such interviews were conducted.

In addition, a partially matched sample of 235 employees who had not quit were also interviewed. This group of «stayers» contained employees who had a length of service distribution similar to that of the group who had quit in the previous three months. Also, the distribution of «skilled» or «unskilled» was similar for both stayers and quits.

The data collected in this interview program included respondent attitudes towards 11 community factors (C), 10 job factors (J), as well as 6 worker characteristics (W). The community factors considered (C) were the respondents' perceptions of housing, schools, medical care, public transportation, entertainment, recreation, friendliness, shopping, day care or pre-school programs, municipal services, regulations and police services. The job factors (J) were the respondents' perceptions of co-workers, immediate supervisors, middle and upper management, wages, physical aspects of the job, the shift system, the holiday system, communication on the job, employer recognition and promotion prospects. The worker characteristics considered (W) were skill level, marital status, length of service, age, education and origin (city, town or village).

Respondents perception of job and community factors were obtained by asking them to indicate their degree of satisfaction with each factor on a 5 point Likert scale ranging from Very Dissatisfied to Dissatisfied to Indifferent to Satisfied to Very Satisfied. Although some job and community factors were generally evaluated more positively than others, no mean score for any factor differed from the central indifference point on our Likert scale by more than one interval. There were no highly skewed distributions of variables used in subsequent analysis.

EMPIRICAL RESULTS

Our empirical results are summarized below by description of P and $X\hat{\beta}$ in equations (5) and (7). In the first regression (equation (1)), we find two community related factors (C_5 and C_8) and two job related factors (J_2 and J_4) that are significantly related to the decision to quit. More precisely, in this equation:

P = probability Y = 1
= probability of a «quit»

$$X\hat{\beta} = \underset{(-1.76)}{-.283} + \underset{(2.1)}{.278C_5} - \underset{(-2.7)}{.371C_8} + \underset{(2.4)}{.365J_2} - \underset{(-4.8)}{.559J_4}$$

where:

C_5 = 1 if dissatisfied with entertainment; 0 otherwise
C_8 = 1 if dissatisfied with shopping; 0 otherwise
J_2 = 1 if dissatisfied with immediate supervisor; 0 otherwise
J_4 = 1 if dissatisfied with wages; 0 otherwise
t values in brackets

The signs and magnitude of the coefficients are particularly interesting. The positive signs of J_2 and C_5 suggest that the primary causes of workers decisions to quit are dissatisfaction with immediate supervisors on the job, and dissatisfaction with entertainment in the community. Although both factors are highly significant, of the two, the job factor is more important.

The negative signs on C_8 and J_4 imply that workers who do not quit, are more likely than those who do, to complain about wages and shopping in the community. These complaints, particularly the wage complaint, are typical of workers who remain with the job and do not tend to be primary factors underlying the decision to quit.

Equally interesting results are obtained from the regression of equation (2) above. This equation shows that worker characteristics significantly related to the decision to quit are length of service (LOS), age, education, and origin. In this equation

P = probability Y = 1
= probability of a «quit»

$$X\hat{\beta} = \underset{(-5.3)}{-4.151} \underset{(-4.6)}{-.660W_4} \underset{(-3.1)}{-.596W_5} \underset{(-2.4)}{-.386W_7} \underset{(-2.0)}{-.447W_8}$$

$$\underset{(-2.7)}{-.784W_9} \underset{(-2.9)}{-1.613W_{10}} \underset{(-1.4)}{-.502W_{14}} \underset{(-1.4)}{-.293W_{17}}$$

where:

W_4 = 1 if LOS is 1-4 years; 0 otherwise
W_5 = 1 if LOS is 5 or more years; 0 otherwise

W_7 = 1 if age is 21-29 years; 0 otherwise
W_8 = 1 if age is 30-39 years; 0 otherwise
W_9 = 1 if age is 40-49 years; 0 otherwise
W_{10} = 1 if age is 50 or more years; 0 otherwise
W_{14} = 1 if education is university graduate; 0 otherwise
W_{17} = 1 if origin is village; 0 otherwise
t values are shown in brackets

The coefficients of the age and length of service variables are all highly significant in this equation, and the coefficients of the education and origin variables are significant in one-tail tests at the 0.10 significance level.

The negative signs on all of these coefficients indicate that each variable in the equation is a factor which *reduces* the probability of quitting below the level which prevails when all the included dummy variables are zero. The regression coefficient for each of the dummy variables included in the equation is a measure of its differential effect from the excluded dummy for that class. With the length of service class of dummies, for example, not all of the variables W_3, W_4, and W_5, can be included in the regression equation, because any one of the three is a perfect linear combination of the other two ($W_3 = 1-W_4-W_5$ for example). To avoid this perfect collinearity among the regressors, which makes estimation impossible, one must be excluded. Which one is excluded is arbitrary, and we chose to exclude W_3 (LOS less than 1 year). The effect of doing this is that the coefficients of W_4 and W_5 must now be interpreted as the differential effect of variables W_4 and W_5 from the base of W_3. In other words, the coefficients of -.660 and -.596 for W_4 and W_5 represent the reduction in the log odds ratio that results from having 1-4 years of service and more than 5 years of service respectively, rather than less than one year of service.

With the age classes, W_6 (age less than 21 years) is the excluded variable, and the results show successively lower values of the log odds ratio (and of the probability of quitting) as age increases throught classes W_7, W_8, W_9, and W_{10}. A less significant reduction in the log odds ratio and the probability of quitting is also observed for those who are university graduates (W_{14}) as opposed to those who are not, and for those whose origins are village (W_{17}), rather than city or town.

Our final step in this analysis is to regress each of the community and job factors found significant in equation (1) on all of the worker characteristics found significant in equation (2). The results are as follows.

P = probability of dissatisfaction with entertainment

$$(6a)\quad X\hat{\beta} = \underset{(-3.0)}{-1.006} \underset{(-3.1)}{-.467W_8} \underset{(-3.3)}{-.584W_9} \underset{(-5.2)}{-1.186W_{10}} \underset{(-1.7)}{-.317W_{17}}$$

Those who are least likely to be dissatisfied with entertainment are those who are older and those whose origins are village rather than city or town.

P = probability of dissatisfaction with shopping

$$(6b)\quad X\hat{\beta} = \underset{(2.8)}{.389} + \underset{(1.91)}{2.44W_4} + \underset{(1.7)}{2.32W_5} + \underset{(1.4)}{.165W_7}$$

Those most likely to complain about shopping are those with length of service longer than one year and those in the 21-29 age group.

P = probability of dissatisfaction with immediate supervisors

$$(7a)\quad X\hat{\beta} = \underset{(1.4)}{-2.785} + \underset{(2.1)}{.292W_5} - \underset{(1.7)}{.490W_8} - \underset{(1.7)}{.528W_9} - \underset{}{.611W_{10}}$$

This equation indicates that those who are most likely to be dissatisfied with their immediate supervisors are the young employees of age less than 30 years. This tendency decreases as the age level rises above 30 (W_8, W_9, and W_{10}), and although there is some offsetting tendency from the length of service variable (W_5), that effect is smaller and less significant.

P = probability of dissatisfaction with wages

$$X\hat{\beta} = \underset{(5.7)}{1.016} + \underset{(2.5)}{.331W_4} + \underset{(4.1)}{.592W_5} + \underset{(1.4)}{.177W_7} + \underset{(1.8)}{.306W_8}$$

Those most likely to be dissatisfied with wages are those with length of service longer than 1 year (W_4 and W_5) and those in the 21 to 39 age group (W_7 and W_8).

It is interesting that dissatisfaction with wages tends to increase with length of service, being greatest for those with length of service of 5 or more years, and tends to be greater for those between the ages of 21 and 39 than for those younger than 21 or older than 39. These results are consistent with wage and employment patterns in this and many other industrial organizations. The majority of new employees were recruited between the ages of 18 and 21 and most were semi-skilled. During the first four years in the plant, it was possible for a worker to develop plant-specific skills in various departments. As the acquisition of these skills was acknowledged, workers quickly moved up the local wage scale. However only a few workers received promotions after this point. Subsequent wage improvements were limited to across the board increases attributable productivity gains and cost of living increases. This experience produces the greatest dissatisfaction with wages among those with length of service of 5 or more years.

CONCLUSIONS

As a result of the logit analysis conducted in this study, we have been able to identify community and job factors, as well as worker characteristics, that are related to the quit decision. Of equal interest are the large number of factors tested and found to be unrelated to quitting in this situation. For example, general dissatisfaction with the shift system in use at this plant was not related to the decision to quit. This result is probably a reflection of the large number of shift systems in use and the fact that workers quite often moved from one system to another. Consequently, a worker may not have been dissatisfied with the overall shift system even though he might, at that point in time, be experiencing difficulty with a temporary night shift. The holiday system was also not a significant factor in the decision to quit. Generally, evaluation of the holiday system were positive, with quits exhibiting slightly more satisfaction with this job factor than stayers. This may be an indication of regret on the part of quits as they have to earn through tenure, the right to a number of days of holiday at their new job.

Of course, these findings are applicable to the particular community and job situation studied, and different results might be found under different circumstances. Moreover, some of the factors found to be insignificant are related to other factors found significant, and the significant variables may be acting as proxies for some of the others. Marital status, for example, is related to the length of service (LOS) and age variables, since those who are married tend to be older with longer service. Consequently, even though marital status is left out of our final regression relationships, its effects may be incorporated, at least in part, by the inclusion of the age and LOS variables.

Our results suggest that this employer would do well to direct hiring policies, to the extent feasible, towards older employees with more experience and with rural backgrounds. Of course, the supply of such people is a severe constraint on this approach to the problem. Our results also suggest lower turnover rates for those with university degrees, but this may be a reflection of the type of jobs these individuals hold, and of the different kinds of relationships they enjoy with their immediate supervisors.

The most important findings of this study are that the primary factors underlying the quit decision are dissatisfaction with immediate supervisors on the job, and with entertainment in the community. Moreover, we find that those less than 21 years of age, with less than one year of service, without a university degree, and with origins in city or town rather than village, are much more likely to be dissatisfied with immediate supervisors

and with community entertainment, and are therefore much more likely to quit. Conversely, we find that the workers aged 21-29 years with 1-4 years of service are the ones most likely to complain about shopping, and that those aged 21-39 years with more than 5 years of experience, are the ones most likely to complain about wages. After the first year of experience, dissatisfaction with shopping tends to emerge, and dissatisfaction with wages becomes greatest after five years of experience. However, these complaints are *not* ones which lead to a decision to quit.

The young and the inexperiences are the ones most likely to quit. In our sample, the estimated probability of quitting for this group is 0.75 as compared to probability as low as 0.03 for other groups. If the young and the inexperienced are also dissatisfied with their immediate supervisors and with the entertainment in their community, the estimated probability of a quit rises to 0.90 for our sample. Clearly, attempts to alleviate the perceived problems of this group have the potential of a large payoff through the reduction of costly turnover rates. Management of the manufacturing operation studied should, in order to reduce the costs of turnover, attempt to meet the needs of young, inexperienced workers, with education levels below a university degree, and with city or town rather than village backgrounds, for entertainment in the community, and most importantly for better relations with immediate supervisors on the job.

Our results confirm some of the findings of previous studies; they provide additional evidence on factors where previous studies are inconclusive; they suggest a revision of one previous conclusion, and they offer some new insight into the causes of turnover in remote communities.

Mobley et al., [18] report consistent negative relationship between age and tenure on the one hand and turnover on the other (see above). Our results confirm these conclusions. Previous studies have been inconclusive on the effects of pay, education, peer group interaction and promotion prospects on turnover (see above). We have found a negative relationship with university level education, and no relationship with pay, co-workers, or promotion prospects.

Previous studies have suggested a moderate negative relationship between satisfaction with supervision and turnover (see above), but our finding is that satisfaction with immediate supervisors has a very strong negative relationship with turnover. In fact, we find it to be the single most important factor, of those considered, underlying the quit decision. Finally, the new insight we offer into the causes of turnover in remote communities has to do with satisfaction with shopping, and with origin of the worker. We find that dissatisfaction with shopping, as with dissatisfaction with wages,

is a cause for grumbling but not for quitting. The quit decision is related to age, tenure, satisfaction with the immediate supervisor, university level education, and also to origin of the worker. On the last factor we find that workers whose origin is village, rather than city or town, are less likely to quit jobs located in remote communities. However, it is satisfaction with immediate supervisors and with entertainment in the community that are the primary determinants of turnover in the remote resource town studied.

Although we have reported in some detail, the results obtained for a particular employer, community, and group of workers, it is our belief that the general model of labour turnover and the methodology employed here could be of significant use for other employers in other communities. Application of this form of analysis would permit an employer to separate statistically valid correlates of labour turnover from ones that are merely speculative. Moreover, a careful examination of results such as we obtained in this study could be of considerable benefit to employers in their assessment of the potential costs and benefits of particular recruitment strategies.

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APPENDIX A

Definition of Variables

We have collected information on a dependent variable Y and independent variables C, J and W defined as follows:

Y= 1 or 0 depending on whether or not the respondent is a «quit».

C_1, C_2, ... C_{11} = 1 or 0 depending on whether or not the respondent found housing difficult to find, is dissatisfied with schools, medical care, public transportation, entertainment, recreation, friendliness, shopping, day care or preschool programs, municipal services, and regulations and police.

J_1, J_2, ... J_{10} = 1 or 0 depending on whether or not the respondent is dissatisfied with co-workers, immediate supervision, middle and upper management, wages, physical aspects of the job, the shift system, the holiday system, communication on the job, appreciation and recognition by the employer, and promotion prospects, respectively.

W_1, W_2, ... W_{17} = 1 or 0 depending on whether or not the respondent is skilled, single, length of service (LOS) is 1-4 years, LOS is 5 or more years, age is less than 21 years, age is 21-29 years, age is 30-39 years, age is 40-49 years, age is 50 or more years, education is grade 0-8, education is grade 9-12, education is some university, education is university graduate, origin is city, origin is town, and origin is city, respectively.

L'analyse logit du roulement de la main-d'oeuvre dans une localité isolée

Cet article porte sur la vérification expérimentale d'un modèle de roulement de la main-d'oeuvre dans une localité isolée au Canada. Le modèle présenté atteste que, dans une localité isolée où l'on exploite des ressources naturelles, les caractéristiques des travailleurs prises individuellement influenceront la perception qu'ils ont de leur emploi et de leur communauté. Ainsi, la satisfaction qu'ils ressentent à travailler et à vivre à cet endroit, tout comme leur perception du marché du travail à l'extérieur, influenceront plus ou moins profondément leurs intentions de chercher un nouvel emploi ailleurs et de s'en aller.

Les données sont tirées d'une étude des causes du roulement de la main-d'oeuvre rétribuée à l'heure d'un grand établissement industriel d'une région isolée de la Colombie Britannique. Au moment où le taux des départs des travailleurs horaires était élevé comparé au passé, une équipe d'étude indépendante a interrogé 145 salariés qui avaient abandonné leur emploi à l'intérieur d'une période de trois mois afin de connaître la réponse de chacun d'eux à dix questions portant sur leur emploi et à onze questions portant sur la vie dans la localité ainsi que sur les raisons de leur départ. On a aussi cherché à obtenir des renseignements sur six caractéristiques personnelles de ces salariés. De plus, le groupe d'étude a également interrogé 235 salariés qui n'avaient pas quitté leur travail. Il s'agissait de travailleurs dont la longueur de service était comparable à celle de ceux qui étaient partis durant les trois mois précédents: la proportion de qualifiés et de non qualifiés était similaire dans les deux groupes.

On a ensuite procédé à l'analyse *logit* des données recueillies pour déterminer l'effet sur la probabilité de départ qu'entraînent chez les travailleurs leur perception de l'emploi qu'ils occupaient, celle de la vie dans une région isolée, ainsi que leurs caractéristiques personnelles. L'analyse *logit*, plutôt qu'une régression linéaire conventionnelle, fut utilisée parce qu'elle implique une distribution continue cumulative de probabilités jusqu'aux frontières 0 et 1 et qu'elle a des effets d'interaction.

Les résultats obtenus indiquent que, dans cet établissement, la probabilité de départ était reliée d'abord à l'insatisfaction à l'endroit de contremaîtres et au mécontentement en regard de loisirs existant dans la localité. En outre, les travailleurs qui restaient se plaignaient plus que ceux qui partaient du niveau des salaires et de la disponibilité de magasins dans la localité. Les caractéristiques personnelles des travailleurs reliées de façon significative à la décision de s'en aller étaient la durée du service, l'âge, la scolarité et la nature du lieu d'origine du travailleur.

Les pointages de la régression en ce qui concerne le milieu de vie, l'insatisfaction au travail, de même que les caractéristiques personnelles, tous trois reliés d'une façon significative à la décision de partir, ont indiqué que les employés de moins de 21 ans, ayant moins d'une année de service, ne possédant pas de diplôme universitaire et originaires de la ville plutôt que de la campagne étaient ceux qui tendaient le plus à être mécontents de leurs supérieurs immédiats et des possibilités de loisirs dans la localité et, en conséquence, les plus disposés à laisser leur emploi. Après une année d'expérience, le mécontentement au sujet de la disponibilité de magasins avait tendance à l'emporter et c'est chez les employés de plus de cinq ans de service qu'on se plaignait davantage des salaires. Toutefois, ces insatisfactions n'étaient pas reliées à la décision de partir.

En fait, les résultats obtenus ne peuvent s'appliquer qu'à cet employeur particulier dans cet endroit particulier. Néanmoins, le modèle général de roulement de la main-d'oeuvre et la méthode de l'analyse *logit* ici présentés peuvent servir pour d'autres employeurs dans d'autres localités isolées.